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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/957,432	09/20/2001	Kenichi Kato	40004199-02	3244

7590

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EXAMINER

ALCALA, JOSE H

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/957,432

**Applicant(s)**

KATO ET AL.

**Examiner**

Jose H Alcala

**Art Unit**

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 7-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-6, drawn to an apparatus having a connector, classified in class 174, subclass 260.
  - II. Claims 6-11, drawn to a method of making apparatus having a connector, classified in class 29, subclass 825.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, such as by eliminating the process of locating connecting electrode means, but just having established and predetermined electrode means beforehand, in order to just connect the elements.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

During a telephone conversation with Paul Greely on 3/18/02 a provisional election was made without traverse to prosecute the invention of Group 1, claims 1-6. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-11 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Drawings***

5. The drawings are objected to because the figures are improperly crosshatched. All of the parts shown in the section, and only those parts, must be crosshatched. The crosshatching patterns should be selected from those shown on page 600-81 of the MPEP based on the material of the part. See also 37 CFR 1.84(h)(3) and MPEP 608.02.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1,2,4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Perino et al (US Patent No. 6,007,357).

Regarding Claim 1, Perino teaches an apparatus (device of Figure 9) for providing electrical connections between respective electrodes of two high-frequency circuit boards (reference numbers 830 and 902), comprising an electrode connecting member including a bar-shaped member (reference number 860) having a predetermined sectional shape, and including connecting electrode means (see reference number 861) formed on a part of an outer periphery of said bar-shaped member, wherein said connecting electrode means is located so as to provide inter-connection between the respective electrodes of said two high-frequency circuit boards through said connecting electrode means and to be sandwiched between the respective electrode thereof.

Regarding Claim 2, Perino teaches that said connecting electrode means comprises a plurality of electrode lines formed so as to be spaced at a predetermined interval on the outer periphery of said bar-shaped member (See device number 860, in figure 8).

Regarding Claim 4, Peregrino teaches that said connecting electrode means comprises a plurality of planer solid electrodes (reference number 862) which are formed on the outer periphery (top surface) of said bar-shaped member (reference number 860) so as to be spaced at a predetermined first interval corresponding to an interval between the respective electrodes of each of said two high-frequency circuit boards (See Figures 8 and 9)

Regarding Claim 5, Peregrino teaches a positioning member (reference number 817) for positioning said electrode connecting member between the two high-frequency circuit boards so that said connecting electrode means provides inter connection between the respective electrodes of the two high-frequency circuit boards so as to be sandwiched between the respective electrodes thereof.

Regarding Claim 6, Peregrino teaches that said plurality of electrode lines is arranged to comprise a structure of coplanar line (See figures 8, and 9).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perino et al. (US Patent No. 6,007,357) in view of Susuki (US Patent No. 5,470,240).

Regarding Claim 3, Perino teaches that said connecting electrode means comprises a plurality of sets of connecting electrodes (reference number 862), respective sets of connecting electrodes are formed on the outer periphery of said bar-shaped member so as to be spaced at a predetermined first interval corresponding to an interval between the respective electrodes (reference number 842 for the board 840, and, the electrodes for board 902 is not shown, but inherently present) of each of said two high-frequency circuit boards, but fails to teach that each set of

connecting electrodes is formed of a plurality of electrode lines which are spaced at a predetermined second interval smaller than the first interval on the outer periphery of said bar-shaped member. Perino fails to teach that each set of connecting electrodes is formed of a plurality of electrode lines which are spaced at a predetermined second interval smaller than the first interval on the outer periphery of said bar-shaped member.

Susuki teaches a set of connecting electrodes (reference number 25) is formed of a plurality of electrode lines which are spaced at a predetermined second interval smaller (See Figure 2) than the first interval (reference number 17) on the outer periphery of said bar-shaped member.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Susuki and Perino in order to have a set of connecting electrodes formed of a plurality of electrode lines which are spaced at a predetermined second interval smaller than the first interval on the outer periphery of said bar-shaped member, thus improving the density of mounting of the boards.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references teach some of the elements of the instant claimed invention: Grange (US Patent No. 3,579,206), Garner (US Patent No. 5,673,182), Beilin et al. (US Patent No. 6,102,710), Hoshino et al. (US Patent No. 4,479,686) and Amano et al. (US Patent No. 4,509,206).


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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jose H Alcala whose telephone number is (703) 305-9844. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbott can be reached on (703) 305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JHA  
March 24, 2003

  
KAMAND CUNEO  
SUPERVISORY PATENT EXAMINER  
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